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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
YOJI KAMEO ET AL : EXAMINER: PADEN, C. A.
SERIAL NO: 10/560,172 :
FILED: NOVEMBER 30, 2006 : GROUP ART UNIT: 1781
FOR: FAT COMPOSITION FOR BAKERY :
PRODUCT AND BAKERY PRODUCT

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Yoshihide Asabu who deposes and states that:

1. I am a named inventor of the above-identified application.
2. I received my master degree from Osaka Prefecture University in the year 1993.
3. I have been employed by Kao Corporation for 17 years as a researcher in the field of food and beverages.
4. I am the same Yoshihide Asabu who signed a declaration for this application on December 22, 2010.
5. The following experiments were carried out by me or under my direct supervision and control.

A composition according to the present invention (Product E) and four control products (Products 9-12) were prepared. The intermediate stage compositions for Product E

and Products 9-12, as well as Product A, which was tested in the declaration I signed on December 22, 2010, are shown in Tables 1 and 2.

The intermediate stage compositions of Products A, E, and 9-12 were prepared as follows:

1) Components (A) and (B) were weighed in a stainless steel beaker having a volume of 2 liters.

2) The above-mentioned 1) was uniformly dissolved in a water bath at 85°C and left for 30 minutes. In this step, agitation was carried out using an anchor hook and a three-one motor (TYPE60G manufactured by HIDON Co., Ltd.).

3) The previously weighed component (C) was added while stirring to the above-mentioned 2), and after it was confirmed that the mixture became uniform, the mixture was left for 30 minutes.

4) In the above-mentioned 3), a large amount of ice was placed in the water bath to cool the mixture to 30°C, and the mixture was kept at a temperature of 30°C and simultaneously stirred, and then transferred to a predetermined container.

5) The above-mentioned 4) was left overnight (for about 12 hours) in a thermostatic bath at 15°C, and then measured for the degree of penetration and evaluated for bread manufacturing.

The “degree of penetration” for the intermediate stage compositions was measured as described in the above-identified application, and the results are reported in the last row of Table 1.

The resulting compositions were then used for bread dough preparation and ultimately turned into bread according to the following procedures:

1) Conditions for preparing intermediate dough.

Using a vertical mixer (Kanto mixer, 10 coats) and a hook, the intermediate compositions were introduced into the mixer and kneaded at low speed for 3 minutes and then for 2 minutes at moderate to high speed, and then formed into intermediate dough at a kneading temperature of 25°C. Then, the intermediate dough was fermented (intermediate fermentation). The conditions for this fermentation were as follows:

Intermediate fermentation temperature: 26.5°C

Intermediate fermentation relative humidity: 80%

Intermediate fermentation time: 2.5 hours

Intermediate fermentation finish temperature: 29.0°C

2. Conditions for preparing kneaded dough.

The intermediate dough was introduced into a vertical mixer (Kanto mixer, 10 coats), and the materials in the kneading stage (materials other than margarine, the fat and oil composition, and xanthane gum) were added and kneaded at low speed for 3 minutes and then at moderate to high speed for 3 minutes, and the remainder materials (margarine, the fat and oil composition, and xanthane gum) were added, kneaded at low speed for 3 minutes, at moderate to high speed for 3 minutes and at high speed for 7 minutes, to make kneaded dough. The kneading temperature of the kneaded dough was 29°C.

For recovery of the dough from damage upon kneading, a rest time of 20 minutes was taken at 27.0°C, and thereafter the dough was divided into portions each weighing 60 g. For eliminating dough damage upon division, a rest time of 20 minutes was taken at 27.0°C, and the dough was molded in a mold. The dough was placed on a heating plate and then fermented. The fermentation conditions were as follows:

Fermentation temperature: 38°C

Relative humidity: 80%

Fermentation time: 45 minutes

3. Conditions for producing bread.

The dough prepared under the conditions described above was baked for 13 minutes in an oven at 170°C. After baking, the sample was cooled to room temperature (20°C) for 45 minutes, then placed in a vinyl bag, sealed, stored at 20°C for 3 days and evaluated as a bread sample. The compositions of the doughs are shown in Table 3.

The “results of evaluation of bread manufacturing” for the breads resulting from the fat and oil compositions of Products A, E, and 9-12 are shown in Table 4. The breads were evaluated for softness, moist feel, and melting feel in the mouth by a panel of 10 examiners. The evaluation designations are as follows.

⊙: Judged to be excellent by at least 8 of 10 examiners.

○: Judged to be excellent by 5 to 7 of 10 examiners.

△: Judged to be excellent by 3 to 4 of 10 examiners.

×: Judged to be not excellent by at least 8 of 10 examiners.

Table I.

Component		Product A	Product 9	Product 10
(A)	Purified rape oil (melting point 10°C or less)	74.5	77.0	74.5
(B)	Glycerine fatty monoester (Excel T-95, manufactured by Kao Coporation)	10	10	10
(B)	Propylene glycol monobenenic acid ester (PGMB, manufactured by Kao Corporation)	10	10	10
(B)	Polyglycerine condensed ricinoleic ester (Sun Soft 818SK, manufactured by Taiyo Kagaku Co., Ltd.)	2	2	2
(B)	Soybean lecithin (Nisshin lecithin Dx, manufactured by Nissin Oilio Group, Ltd.)	1	1	1
(C)	Xanthane Gum (Bistop D-3000, manufactured by San-Ei Gen F.F.I., Inc.)	2.5	-	-
(C)	Vital gluten (A glu-G, manufactured by GlicoFoods Co., Ltd.)	-	-	2.5
ratio in (B)	ratio of glycerine fatty acid monoester / propylene glycol monobenenic acid ester	1/1	1/1	1/1
ratio in (B)	ratio of polyglycerine fatty monoester / propylene glycol monobenenic acid ester	-	-	-
(A)/(B) weight ratio		3.2	3.2	3.2
Degree of Penetration		31	40	32

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Table 2.

Component		Product E	Product 11	Product 12
(A)	Purified rape oil (melting point 10°C or less)	83	85.5	83
(B)	Glycerine fatty monoester (Execl T-95, manufactured by Kao Corporation)	7	7	7
(B)	Propylene glycol monobenhenic acid ester (PGMB, manufactured by Kao Corporation)	7	7	7
(B)	Polyglycerine condensed ricinoleic ester (Sun Soft 818SK, manufactured by Taiyo Kagaku Co., Ltd.)	-	-	-
(B)	Soybean lecithin (Nisshin lecithin Dx, manufactured by Nissin Oillio Group, Ltd.)	0.5	0.5	0.5
(C)	Xanthane Gum (Bistop D-3000, manufactured by San-Ei Gen F.F.I., Inc.)	2.5	-	-
(C)	Vital gluten (A glu-G, manufactured by GlicoFoods Co., Ltd.)	-	-	2.5
ratio in (B)	ratio of glycerine fatty acid monoester / propylene glycol monobenhenic acid ester	1/1	1/1	1/1
ratio in (B)	ratio of polyglycerine fatty monoester / propylene glycol monobenhenic acid ester	-	-	-
(A)/(B) weight ratio		5.7	5.7	5.7
Degree of Penetration		75	85	77

Table 3.

Dough Composition (parts by weight)	Product A	Product 9	Product 10	Product E	Product 11	Product 12
Wheat flour (bread flour)	80	80	80	80	80	80
Wheat flour (weak flour)	20	20	20	20	20	20
Yeast	7	7	7	7	7	7
Yeast food	0.05	0.05	0.05	0.05	0.05	0.05
Sugar	16	16	16	16	16	16
Skin milk	4	4	4	4	4	4
Common salt	1	1	1	1	1	1
Whole egg	20	20	20	20	20	20
Shortening	15	15	15	15	15	15
Fat and oil composition	↑	↑	↑	↑	↑	↑
Compounded amount	5	5	5	5	5	5
Water	40	40	40	40	40	40
Roll-in fat and oil	50	50	50	50	50	50

Table 3.

Results	Product A	Product 9	Product 10	Product E	Product 11	Product 12
Softness	⊙	Δ	Δ	⊙	Δ	Δ
Moist Feel	⊙	Δ	Δ	⊙	Δ	Δ
Melting Feeling in Mouth	○	×	Δ	⊙	Δ	○

6. As shown in Table 3, the bread prepared from fat and oil compositions Products A and B exhibited improved softness, moist feel, and melting feeling in the mouth as compared to breads prepared from fat and oil compositions 9-12.

7. I declare further that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

8. Further, Declarant saith not.

Yoshihide Asabu
Yoshihide Asabu
May 9, 2011
Date